

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently amended) A system that ranks search results, comprising the following computer executable components stored in memory:

a first component that determines [[a]] relevance of respective search results associated with one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room via one or more feature-based relevance functions wherein features of the function are based at least on one of a one or more of global thread properties, one or more posting-specific thread properties, one or more attributes of a person posting messages or one or more newsgroups; and

a second component that generates ordered ~~orders the~~ search results based on their respective relevances.

2. (Currently amended) The system of claim 1, the one or more global thread properties ~~feature-based relevance functions~~ ~~utilize features that include at least one of: one or more text-based relevance scores; a comparison between text-based relevance scores with different scopings; an occurrence of a word in a thread position relative to a posting; an occurrence of a word-class in a thread position relative to a posting; an occurrence of a phrase in a thread position relative to a posting; an inferred label on an edge between a posting and the posting's parent; an inferred label on an edge between a posting and the posting's child; a number of messages in a thread[[:]], a thread depth[[:]], a thread maximal branching factor[[:]], a thread linguistic property; the one or more posting-specific thread properties~~ comprise at least one of a posting depth[[:]], a number of descendents of a posting[[:]], a number of children in a posting[[:]], a number of postings per time duration[[:]], a number of newsgroups posted[[:]], or a number of postings that have no responses; and the relevance functions utilize one or more newsgroups based on a probability that a posting is relevant given that the posting is from a

particular newsgroup[[;]], and a probability a posting from a particular newsgroup is relevant given a query.

3. (Original) The system of claim 1, the relevance functions are generated based on one or more of scoped lexical information, a digital artifact attribute, and a source repository attribute.

4. (Canceled)

5. (Currently Amended) The system of claim [[4]] 1, the search results are further associated with searches over the collections of digital artifacts comprise data associated with one or more of a Usenet, a mailing list, ~~a discussion thread~~, a wiky, ~~a blog~~, ~~an archived community discussion~~, ~~a chat room~~, a web page, a database, ~~and or~~ or a list.

6. (Original) The system of claim 1, further comprising a function generator that creates the relevance functions based on at least one of a training set, a feature set, a probability, an inference, a classifier, a heuristic, and user specified criteria.

7. (Original) The system of claim 1, the relevance functions are refined based on a user's response to the ranked search results.

8. (Original) The system of claim 1, the relevance functions are probabilities that respective digital artifacts are relevant to a search.

9. (Previously Presented) The system of claim 8, at least one relevance function is defined as $\text{Relevance}(V(\text{posting}, \text{query}))$, which is a relevance weight of a posting given a query, wherein function $V(\text{posting}, \text{query})$ returns a set of features and feature values for a particular posting and query.

10. (Original) The system of claim 1, the relevance functions associate relevance weights with respective search results and the ranking of the search results is based on the relevance weights.

11. (Original) The system of claim 1, the relevance functions are generated *via* machine learning.

12. (Original) The system of claim 11, the machine learning includes one or more of a linear regression, a non-linear regression, and a support vector machine.

13. (Currently amended) The system of claim 1, the one or more feature-based relevance functions utilize a features that are obtained by extracting information from digital artifacts.

14. (Previously Presented) The system of claim 1, further comprising a thresholding component that defines one or more acceptable relevance levels in order to mitigate providing non-relevant search results to a user.

15. (Previously Presented) The system of claim 14, the acceptable relevance levels are configured for at least one of an application and the user.

16. (Previously Presented) The system of claim 14, the acceptable relevance levels dynamically adjust based on the user's response to search results.

17 – 33. (Canceled)

34. (New) The system of claim 1, the one or more features based relevance functions utilize features that comprise an occurrence of one or more of a word, a word class or a phrase in a thread position relative to a posting.

35. (New) The system of claim 1, the one or more features based relevance functions utilize one or more of text-based relevance scores for respective scoping or a comparison between the text-based relevance scores with different scopings.

36. (New) The system of claim 1, the one or more features are based on inferred labels on edges between a posting and one or more of its parent or child where these labels are derived automatically from message content.

37. (New) A system that ranks search results comprising the following means stored in a computer memory:

means for determining relevance of respective search results selected from one or more of a Usenet, a discussion thread, a blog, an archived community discussion, or a chat room *via* one or more feature-based relevance functions wherein features are based at least on one of a one or more of global thread properties, one or more posting-specific thread properties, one or more attributes of a person posting messages or one or more newsgroups; and

means for generating ordered search results based on their respective relevances.

38. (New) The system of claim 37, further comprising means for automatically training the relevance functions from labeled data.